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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/750,346	12/29/2000	Byung Dal Jung	630-1202P	6902

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EXAMINER

MA, JOHNNY

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 07/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/750,346

Applicant(s)

JUNG, BYUNG DAL

Examiner

Johnny Ma

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because "121" of Figure 2 should read "120" and "130-3, 130-4" of Figure 5 should read "130-1, 130-2", respectively. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Giammaressi (US 2003/0061619 A1).

As to claim 1, note the Giammaressi reference that discloses a service rate change method and apparatus. The claimed “clients for requesting and receiving information corresponding to the request” is met by video session manager receiving a programming request from the subscriber and provides the requested programming according to available bandwidth resources (paragraphs [0031-0034]). The claimed “and a virtual server being connected with the clients via a first network to receive the request on information from the clients and transmit it to the server” is met by transport subsystem 104 as illustrated in Figure 1, wherein commands are sent from subscriber equipment to video session manager coupled to an information server (see Figure 1; also see paragraphs [0028-0029]). The claimed “and being connected with the server via a second network to receive and store the information provided from the server, control a traffic of the networks and transmit the information suitable to the characteristics of the clients” is met by video session manager coupled to information server via data path 116 (paragraph [0017]) wherein “...video session manager 122 (or session manager) is a system providing communications between the provider equipment 102 (e.g., a cable system head end) and one or more set top terminals...session manager 122 also manages the server content streams transmitted to the one or more set top terminals” (paragraph [0016]).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

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such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giammaressi (US 2003/0061619 A1) in further view of Ito et al. (US 6,014,693).

As to claim 2, the claimed “a first data base for storing a full size of information” is met by data storage unit storing appropriate bandwidth programs (paragraph [0021]). The claimed “a second data base for storing a critical part” is met by the storage unit storing minimal bandwidth programs. However, the Giammaressi reference is silent as to the process for creating a minimal bandwidth program. Now note the Ito et al. reference that discloses a system for delivering compressed stored video data by adjusting the transfer bit rate to compensate for high network load. The claimed “extracted from the full size of the information stored in the first data base” is met by the Ito et al. video data assembler that extracts data from the original video data to create a lower bit-rate version of the video program (column 3, lines 12-20). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify (if necessary) the Giammaressi minimal bandwidth program with the Ito et al. process for creating a lower bit-rate version of a video program for the purpose of providing a means for creating a minimal bandwidth program using data that is readily available, the appropriate bandwidth program.

As to claim 3, the claimed “wherein the virtual server transmits the full size of information to the clients or a critical part extracted from the information to the clients” is met by the transmission of an appropriate bandwidth program or minimal bandwidth program according to bandwidth resources (paragraphs [0033-0036]).

As to claim 4, the claimed “wherein the information includes a multimedia of an MPEG form” is met by the use of MPEG encoding (paragraph [0014]).

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Giammaressi (US 2003/0061619 A1) in further view of Nagashima et al. (US 6,434,746 B1).

As to claim 5, note the Giammaressi reference discloses minimal bandwidth programs that have been encoded utilizing a bit budget representing a minimal level in terms of visual or aural encoding quality (paragraph [0021]). However, the Giammaressi reference is silent as to the specific means for performing such a conversion. Now note the Nagashima et al. reference that discloses an accounting in an image transmission system based on a transmission mode and an accounting mode based on the transmission mode. The claimed “wherein the information stored in the second data base includes a multimedia having a small number of ‘B’ picture or having a small number of ‘B’ picture and ‘P’ picture” is met by “[i]f the available capacity is not sufficient for transmitting all the frames, the I- and P-frames alone are transmitted. If the available capacity is even lower, the I-frame alone is transmitted...” (column 8, lines 21-27). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify (if necessary) the Giammaressi minimal bandwidth program with the Nagashima et al. transmission of a reduced number of B or P frames for the purpose providing a means of supplying continuous data to a viewer when bandwidth limitations do not allow for the transmission of a full bit-rate presentation.

7. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giammaressi (US 2003/0061619 A1).

As to claim 6 and 7, note the Giammaressi reference discloses maximum data transfer rates between the networked various servers/components and network from video session manager to user stations (paragraphs [0021, 0025]). However, the Giammaressi reference does not specifically disclose reducing a data transfer rate difference. Nevertheless, the examiner gives Official Notice that it is notoriously well known in the art that communications between data components in a head end occur at faster rates than that of the communication between a headend component and a client for the purpose of ensuring data is routed as quickly as possible for transmission to a user such as the buffering of data that is transmitted at a high rate and read from the buffer in real-time for subsequent transmission to a user to ensure uninterrupted viewing of a video signal. Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Giammaressi data transfer rates accordingly for the above stated advantages.

8. Claims 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giammaressi (US 2003/0061619 A1) in further view of Verbiest et al. (US 5,550,577).

As to claim 8, note the Giammaressi reference discloses "...video session manager 122 contains its own central processing unit 124 and associated memory 126. The video session manager 122 (or session manager) is a system providing communications between the provider equipment 102 (e.g., a cable system head end) and one or more set top terminals. The session manager 122 also manages the server content streams transmitted to the one or more set top terminals" (paragraph [0016]). However, the Giammaressi reference is silent as to a main memory and auxiliary memory. Now note the Verbiest et al. reference that discloses a video on demand network, including a central video server and distributed video servers with random

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access read/write memories. The claimed “a main memory for storing information received from the server” is met by distributed server obtaining a copy of the requested video signal from central server and storing the requested video signal in memory” (column 8, lines 29-41). The claimed “an auxiliary memory for storing information outputted from the main memory” is met by retrieval of video signal from distributed server memory into buffer for transmission to a user (column 10, lines 4-61). The claimed controller for managing specifications of the server and the clients is met by distributed server controller (column 6, lines 43-58). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify (if necessary) the Giammaressi video manager server with the Verbiest et al. receipt and storage of video data at a distributed server for the purpose of alleviating load on a central controller by transferring such video data to the video session manager for more readily available playback to a user.

As to claim 9, please see rejection of claim 1 wherein the claimed first and second interface unit are inherent to the connecting of the devices between the above discussed networks.

As to claim 10, please see rejection of claim 2.

As to claim 11, note the Giammaressi reference discloses serving video to users. However, the Giammaressi reference is silent as to sharing video streams. Now note the Verbiest et al. reference that discloses a video on demand network, including a central video server and distributed video server with random access read/write memories. The claimed “wherein in a state that information is stored in the auxiliary memory as having been requested by a previous client, in case that a different client requests the same information as previously

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stored, the virtual server transmits the same information from the auxiliary memory to the different client” is met by if the requested video signal is already registered as being transmitted to a user station then a multicast be updated so as to also transfer the video signal to the different client (column 8, lines 8-59). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify (if necessary) the Giammaressi video manager server with the Verbiest et al. shared streaming for the purpose of conserving transmission bandwidth so that a greater variety of programming may be transmitted to a plurality of users.

As to claim 12, please see the rejection of claim 8. The claimed “wherein, under the control of the controller, the main memory receives and stores the full size of information and transmits it to the client” is met by the discussed receiving and storing of video data from central server for transmission to a user and the claimed “and at the same time, outputs it to the auxiliary memory” is met by the loading into buffer of the received video program for transmission as discussed above.

As to claim 13, please see rejection of claim 8. The claimed “wherein under the control of the controller, the auxiliary memory stores information outputted from the main memory or receives and stores the critical part extracted from the information, and transmits it to the client” is met by the storage of read video data into a buffer for transmission to a user as discussed above.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Giammaressi (US 2003/0061619 A1) in further view of Aharoni et al. (US 6,014,694).

As to claim 14, note the Giammaressi reference discloses a service rate change method and apparatus to ensure continuous video reproduction at the client site in response to bandwidth resources. However, the Giammaressi reference is silent as to the reproduction speed of the clients. Now note the Aharoni et al. reference that discloses a system for adaptive video/audio transport over a network. The claimed "wherein the characteristics of clients includes a reproduction speed of the clients" is met by "...the system can adjust the video data to match the differences in available computing power on the client computer system" (column 2, lines 44-65). Therefore, the examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify (if necessary) the Giammaressi scaled video according to network congestion with the Aharoni et al. adjusting of video according to client computing power for the purpose of allowing a greater variety of devices to access the video distribution system resulting in larger viewing audience and increased revenue.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The Payton reference (US 5,790,935) discloses a virtual on-demand digital information delivery system and method.

The Greenwood et al. reference (US 5,568,181) discloses a multimedia distribution over wide area networks.

The Chou reference (US 6,637,031 B1) discloses a multimedia presentation latency minimization.

The Russo reference (US 6,025,868) discloses a stored program pay-per-play.


The Colbath reference (US 6,728,776 B1) discloses a system and method for communication of streaming data.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johnny Ma whose telephone number is (703) 305-8099. The examiner can normally be reached on 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jm


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